

KUZMANOV, B.

Materials and some critical notes on the genus Euphorbia L.  
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KOZHUKHAROV, St.; KUZMANOV, B.

Some materials and critical notes on the flora of Bulgaria,  
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BONDEV, Iv.; KUZMANOV, B.

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153-154 '63.

KOZLUKHAROV, S. [Kozlukharov, s. ]; KUZMANOV, P.

Chromosome numbers of four Bulgarian plants. Doklady BA 17  
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1. Submitted by Academician P. Jordanoff [Jordanov, P.]

KOZUHAROV, S.[Kozhukharov,S.]; KUZMANOV, B.

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biol 57 no.1:103-109 '62-'63 [publ. '64.].

KUZMANOV, Georgi

Training and pruning of vines which secure mechanized earthing.  
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KUZMANOV, P.

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KUZMANOV, P.

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dota. Iord. Todorov.  
(ANEMIA case reports.)

POPOV, A.; MITSEV, I.; KUZMANOV, V.

On Euphorbia Lathyris and the oil from its seed. Doklady BAN  
14 no.4:369-372 '61.

1. Botanisches Institut an der Bulgarischen Akademie der  
Wissenschaften. 2. Institut für organische Chemie an der  
Bulgarischen Akademie der Wissenschaften. Vorgelegt von  
Akademienmitglied G. Rankoff [G. Rankov].

BURILKOV, T.; BABADZHOV, L.; KUZMANOV, V.

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(TUBERCULOSIS PULMONARY)  
(TUBERCULOSIS PLEURAL)  
(MASS CHEST X-RAY)  
(LUNG DISEASES)

UZUNOV, Blagoi, inzh.; KUZMANOV, Valentin, inzh.

Sprinkling of the crops, and problems of its introduction in Bulgaria.  
Khidrotekh i melio 7 no.10:304-307 '62.

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General characteristics of waxes extracted from the essential oil  
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med.

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1. Mikrobioloski institut Med. fakulteta, Skoplje.  
(COLITIS, in inf. & child  
etiol. of enterocolitis (Ser))

DASKALOV, A.; KUZMANOVA, P.; DIMITROVA, Ia.

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Suvrem. med., Sofia 9 no.6:73-78 1958.

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zaboliavaniia i lechebno khranene i Tsentralnata klinichna laboratoria  
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(LEUKOCYTES

Pelger's nuclear anomaly, familial, case reports (Bul))





U ZMANJEV

KUZMANOVIC, Bogdan

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under static bending moments. Publ Teh fak Sarajevo 1  
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LALIC, M.; MEDEDOVIC, V.; STANKOVIC, R.

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diagnosis. Acta med. iugosl. 9 no.2-3:213-242 1955.

1. IV Interna klinika Medicinskog fakulteta u Beogradu.  
(MYOCARDIAL INFARCT,  
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1. IV Interna klinika Medicinskog fakulteta u Beogradu (upravnik  
prof. dr. C. Plavsic)

(ION EXCHANGE RESINS, ther, use

cation exchange resins in heart dis., indic.(Ser))

(HEART DISEASES, ther.

cation exchange resins, indic.(Ser))

KUZMANOVIC, Branislav O., dr. (Beograd)

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(AEROSOLS, Ther use.

indic. (Ser.))

KUZMANOVIC, Branislav; DJORDJEVIC, Bozidar; JOSIPOVIC, Vladan;  
MEDJEDOVIC, Veljko; ARAMBASIC, Milan

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no.1:17-29 Jan 57.

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Upravnik: prof. Radivoje Berovic.  
(VENAE CAVAE, dis.  
obstruct., clin. aspects (Ser))

KUZMANOVIC, Branislav O., dr. (Beograd)

Diagnosis of gout. Med. glasn. 14 no.2:76-80 F '60.  
(GOUT diag.)

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Current views on pylonephritis. Med. glas. 18 no.1:17-19  
Ja-F '64



KUZMAYTE, R.I.; YUSHCHENKO, G.V.

Acute mesenteric lymphadenitis of pseudotuberculous origin.  
Khirurgiia 39 no.4:71-76 Ap'63 (MIRA 17:2)

1. Iz kafedry detskoy khirurgii (zav. - prof. S. Ya. Doletskiy)  
TSentral'nogo instituta usovershenstvovaniya vrachey, kafedry ob-  
shchey khirurgii (zav. - dotsent T.I.Shurkus [Surkus,T.] Kau-  
nasskogo meditsinskogo instituta i TSentral'noy protivochumnoy  
nablyudatel'noy stantsii (nachal'nik Z.A. Plankina) Ministerstva  
zdravookhraneniya SSSR.

YUSHCHENKO, G.V.; KUZMAYTE, R.I.

Case of mesenteric lymphadenitis caused by the pseudotuberculosis  
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Ministerstva zdravookhraniya SSSR i Tsentral'nyy institut  
usovershenstvovaniya vrachey.

YUSHCHENKO, G.V.; KUZMAYTE, R.I.

Case of detecting *Pasteurella multocida* in appendicitis. Zhur.  
mikrobiol., epid. i immun. 42 no.6:141-142 '65.

(MIRA 18:9)

1. TSentral'nyy nauchno-issledovatel'skiy institut epidemiologii  
Ministerstva zdravookhraneniya SSSR i TSentral'nyy institut  
usovershenstvovaniya vrachey, Moskva.

KUZMEK, B.

ZERDIK, M. KUZMEK, B.

Yugoslavia (430)

Technology-Periodicals

A rapid method for the Determination of grease in wool. p. 293. TEHNICKI PREGLED. (Croatia. Uprava za unapredenje proizvodnje pri privrednom savjetu) Zagreb. (Bimonthly technical journal issued by the Production Improvement Administration of the Economic Council) No. 6, 1951.

East European Accessions List, Library of Congress Vol. 2, no. 6, June 1953. Unclassified.

*Kuzmek, B*  
YUGOSLAVIA / Chemical Technology. Chemical Products and Their  
Application. Dyeing and Chemical Treatment of  
Textiles.

H-34

Abs Jour : Ref Zhur - Khim., No 3, 1958, No 10,061

Author : Kuzmek

Inst : Not given

Orig Pub : Tekstil, 1956, 5, No 4, 276-285

Title : Causes for Cellulose Fiber Defects and Their Determina-  
tion.

Abstract: : The Possible mechanical, chemical, thermal, and micro-  
biological damages (D) to cellulose fibers are considered.  
Cotton fibers are most often damaged in the bleaching pro-  
cess; the formation of hydrocellulose and oxycellulose may  
be determined microscopically according to Kornroykh, by  
the use of Na zincate or methylene blue. The case where  
chemical D is done to cotton fabric in the singeing pro-  
cess is described in detail. The illuminating gas used  
contained up to 3% S (organic and inorganic); the oxides  
which were formed in the combustion of the gas were held

Car.

Card 1/2

18

KUZ'MEN A. YA.

Viticulture

Changing the ripening period and the quality of the yield of young grapevines. Vin. SSSR no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, July 195~~7~~, Uncl.  
2

KUZ, MENCHUK, I.F., agronom; ROZHDESTVENSKIY, I.G., kand.  
sel'skokhozyaystvennykh nauk.

Using local fertilizers on the "Kommunar" Collective Farm.  
Zemledelie 7 no.2:30-34 F '59. (MIRA 12:3)

1. Kolkhos "Kommunar," Ruzhichnyanskogo rayona (for Kuz'menchuk).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy svezkly.  
(Ruzhichnaya District--Fertilizers and manures)

KUZ'MENKIN, V.T.; BAZIKEYEV, Kh.G., master; PESHKIN, N.V., elektroslesar' (Ufa)

Redesigning the ASDP-500G unit for welding pipes in a carbon dioxide atmosphere. Stroi. truboprov. 7 no.10:24 0 '62.

(MIRA 15:11)

1. Glavnyy mekhanik stroitel'no-montazhnogo upravleniya No.74 tresta Nefteprovodmontazh (for Kuz'menkin).
2. Remontno-mekhanicheskaya masterskaya tresta Nefteprovodmontazh (for Bazikeyev, Peshkin).

(Pipe--Welding)



(

S/084/60/000/03/046/083  
D047/D002

AUTHOR: Kuz'menko, A., Aviation Mechanic (Novosibirsk)  
TITLE: The IP-40  
PERIODICAL: Grazhdanskaya aviatsiya, 1960, Nr 3, p 19 (USSR)  
ABSTRACT: This MP-44A<sup>d</sup> and MP-85<sup>d</sup> heaters are too clumsy for special application. Heaters are needed which can be carried on board the An-2 and Yak-12M aircraft. The author asks for production of the IP-40<sup>d</sup> heater to be resumed. It was stopped because the heater made too much noise, but the author claims that this defect can easily be remedied. ✓

Card 1/1

1. CA

Thermal analysis of the systems iodine-LiI, -KI, RbI or -TlI. Ya. A. Plakov and A. A. Kuz'menko. *Mem. Inst. Chem. Ukrain. Acad. Sci.* 2, 127-130 (1955); *J. Gen. Chem. (U.S.S.R.)* 6, 265-72 (1959). --Polyiodides are not formed when the iodides are fused with I, indicating that the presence of a solvent is essential for their formation. R. C. A.

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

KUZ'MENKO, A. A.

23018 Fiziko-Khimicheskoe izucheniye iodnykh rastvorov (soobshch.) 5. A. A. Kuz'menko i Ya. A. Fialkov. Termicheskii analiz i elektroprovodnost' sistemy PBr<sub>3</sub> - ied. Zhurnal obshchey khimii, 1949, vyp. 6, C. 1007-13.

SO: LETOPIS' NO. 31, 1949

6

CA

The action of phosphorus trichloride or tribromide on  
iodine chloride and iodine bromide, respectively. Ya. A.  
Flaikov and A. A. Kuz'menko (Ukrain. Acad. Sci. J.  
Gen. Chem. U.S.S.R. 1978, 28, 9, 371-9(1049); English  
translation).—See C.A.B. 44, 1354f. E. J. C.

CA

D

Physicochemical study of iodine solutions. IV. Systems of phosphorus halide-iodine. Ya. A. Finkov and A. A. Kuz'menko. *J. Gen. Chem. U.S.S.R.* 19, 707-810 (1949) (Engl. translation). See C.A. 44, 1714.

E. J. C.

CA

6

Physicochemical investigation of iodine solutions  
IV. Systems of phosphorus halides iodine. V. A.  
Fialkov and A. A. Kusa'menko. *Zhur. Obshch. Khim.* : /  
*Gen. Chem.* 19, 812-25 (1949). — The systems investigated  
were  $\text{PCl}_3\text{-I}_2$ ,  $\text{PBr}_3\text{-I}_2$ ,  $\text{PI}_3\text{-I}_2$ , and  $\text{PCl}_2\text{-I}_2$ .  $\text{PCl}_3$  is  
slightly sol. in  $\text{I}_2$ .  $\text{I}_2$  does not form compds. with  $\text{PCl}_3$ ,  
 $\text{PBr}_3$ ,  $\text{PI}_3$ ,  $\text{PI}_2$ , or polyhalides. The elec. cond. of the  
systems  $\text{PCl}_3\text{-I}_2$  and  $\text{PBr}_3\text{-I}_2$  is less than that of fused  $\text{I}_2$ .  
At 33 mol. % of  $\text{PI}_3$ , the system  $\text{PI}_3\text{-I}_2$  begins to be con-  
verted into the system  $\text{PI}_2\text{-I}_2$ . In  $\text{I}_2$  solns. of  $\text{PCl}_3$  the elec.  
cond. reached  $4 \times 10^{-4}$  mhos as a result of electrolytic  
dissocn. of the complex  $\text{PCl}_2\text{I}$  resulting from the intera-  
tion of  $\text{PCl}_3$  and  $\text{I}_2$ . A new method for isolation of  
 $\text{PCl}_2\text{I}$  from  $\text{CCl}_4$  solns. is given.  $\text{PCl}_2\text{I}$  (or  $\text{PCl}_2\text{I}_2$ ) is  
assigned the structure  $[\text{PCl}_2]^+ [\text{ICl}_2]^-$ . A cation of such  
compn. was found in the crystal lattice of  $\text{PCl}_3 \cdot \text{PCl}_2$ .  $\text{PCl}_2$   
oxidizes  $\text{I}_2$  to  $\text{ICl}_2$ ; the formula  $\text{PCl}_2\text{Cl}_2$  is suggested for it.

Interaction of  $\text{PCl}_3$  with the weakly polar  $\text{ICl}$  yields  
 $[\text{PCl}_2]\text{ICl}$ , which combines with  $\text{ICl}$  to form the complex  
E. W. Bunker

2

C A

Physicochemical study of iodine solutions. V. Thermal analysis and electrical conductivity of the system  $PBr_3$ -iodine. A. A. Kuz'menko and Ya. A. Fialkov. *Zhur. Obshch. Khim.* 10, 1007-13; *J. Gen. Chem. U.S.S.R.*

10, 1007-1011 (1949) (Rusl. translation); cf. C.A. 44, 1323. The addn. of  $PBr_3$  lowers the m.p. of binary mixts. from 113.2° for pure  $I_2$  to a eutectic at 50 mole %  $PBr_3$ , m. at 13.5°. The m.p. then rises to a max. of 110° at 75 mole %  $PBr_3$ , and then falls to the m.p. of  $PBr_3$ , 108.7°. Owing to the similarity with the  $PCl_3-I_2$  system (cf. C.A. 44, 4714), the max. is attributed to the complex  $PBr_3 \cdot I_2$ , formed by the reactions:  $PBr_3 + I_2 = PBr_3 \cdot I_2$ ;  $2PBr_3 + 2I_2 = 2PBr_3 \cdot I_2$ ;  $3PBr_3 + I_2 = PBr_3 \cdot I_2 + 2PBr_3$ . A mixt. contg. 1 mole  $PBr_3$  to 2 moles  $I_2$

melted at 13.5°, identical with the eutectic above. An equimolar mixt. of  $PBr_3$  and  $I_2$  melted at 114.5°, almost identical with the max. in the above system, indicating the max. can be attributed to the complex  $PBr_3 \cdot I_2$ . The sp. cond., measured at 130°, rises from  $3.1 \times 10^{-4}$  ohm<sup>-1</sup> cm.<sup>-1</sup> for pure  $I_2$  to a broad max. of about  $3.2 \times 10^{-4}$  ohm<sup>-1</sup> cm.<sup>-1</sup> extending from 32 to 82 mole %  $PBr_3$ , and then drops sharply to a negligible value for concns. above 95.7 mole %  $PBr_3$ . The temp. coeff. of cond. is neg. At 20.4 mole %  $PBr_3$ , e.g., the sp. cond. decreases from  $1.34$  to  $0.76 \times 10^{-4}$  ohm<sup>-1</sup> cm.<sup>-1</sup> on heating from 130° to 130°. Electrolysis studies on solns. of the complex  $PBr_3 \cdot I_2$  showed that  $I$  is transported to the anode, and  $P$  to the cathode, indicating that the complex is dissociated, presumably according to the formula  $(PBr_3 \cdot I_2)_2$ . Its formation may be summarized by the equation  $(PBr_3 \cdot I_2)_2 = PBr_3 + I_2$ . Sp. gr. in the system, measured at 130°, jumps from 0.91 for pure  $I_2$  to 3.84 for a mixt. contg. 1.93 mole %  $PBr_3$ , then decreases steadily with increasing concn. of  $PBr_3$  to a value of 3.11 for 71.05 mole %  $PBr_3$ .  
Arikl J. Müller

Inst. Gen. & Inorg. Chem., Sub Complex Compounds, AS USSR

CA

Interaction of phosphorus trichloride or tribromide with iodine chloride or bromide, respectively. V. A. Fialkov and A. A. Kuz'menko. *Zhur. Priklad. Khim.* (J. Gen. Chem.) 19, 1645-52 (1946). (1) Addn. of  $\text{PCl}_3$  to  $\text{ICl}$  gives rise to an intense exothermal reaction, resulting in a dark-violet soln, crystals of  $\text{I}_2$ , and a dark orange cryst. substance. Up to 10 mole %  $\text{PCl}_3$ , the cryst. prodn. dissolves in the liquid on shaking. The system  $\text{PCl}_3\text{-ICl}$  has a eutectic at  $0.8^\circ$ , 10 mole %  $\text{PCl}_3$ . The melting curve then rises steeply with further increasing concn. of  $\text{PCl}_3$ , and the amt. of the dark-violet liquid increases; at the same time, a dark-brown, apparently non-homogeneous solid is pptd. in increasing amts. By analysis, the liquid consists of  $\text{PCl}_3$  and  $\text{I}_2$ . The solid, after repeated extr. with warm  $\text{CCl}_4$ , gave a yellow-orange product which, after heating to  $80^\circ$  to remove the rest of  $\text{CCl}_4$ , analyzed  $\text{PCl}_3$ , or  $[\text{PCl}_2][\text{ICl}]$ , identical with the product formed in the reaction between  $\text{PCl}_3$  and  $\text{I}_2$ . The reaction between  $\text{PCl}_3$  and  $\text{ICl}$  can be represented by the stages  $\text{PCl}_3 + 2\text{ICl} \rightleftharpoons \text{PCl}_3 + \text{I}_2$ , followed by  $\text{PCl}_3 + \text{ICl} \rightleftharpoons \text{PCl}_2\text{I} + \text{I}_2$ ; this amounts to the overall reaction  $\text{PCl}_3 + 3\text{ICl} \rightleftharpoons \text{PCl}_2\text{I} + \text{I}_2$ . This equation was confirmed by quant. expts. The elec. cond. of the system, detd. at  $45^\circ$  and  $55^\circ$  between 4.2 and 10.5 mole %  $\text{PCl}_3$ , rises to a max.  $0.037 \text{ ohm}^{-1}$  at  $45^\circ$ , at about 0.8 mole %  $\text{PCl}_3$ , then falls slowly with further increasing  $\text{PCl}_3$ . The high elec. cond. indicates the presence of an electrolyte of the type  $[\text{PCl}_2][\text{ICl}]$ . This finding invalidates Walden's (*Z. phys. Chem.* 43, 425 (1933)) assertion of the noncond. of that system. (2) Thermal analysis of the system  $\text{PBr}_3\text{-IBr}$  (0-57 mole %  $\text{PBr}_3$ ) shows a eutectic at  $12.5^\circ$ , 33.6 mole

%  $\text{PBr}_3$ . Beyond that point, arrests become undrup and the system is strongly undercooled. The liquid sep. into 2 layers, the lower crystallizing between  $11.5^\circ$  and  $22.5^\circ$ , the upper, of lighter color, somewhat below the crystn. temp. of  $\text{PBr}_3$ , namely  $-50^\circ$  to  $-55^\circ$ . All told, the melting diagram shows 3 lines of temp. arrests,  $21.5^\circ$ ,  $22.5^\circ$  (35-61 mole %  $\text{PBr}_3$ ),  $12.5^\circ$ - $13.5^\circ$  (eutectic), and  $1^\circ$ - $3^\circ$ . That the reaction equation is  $\text{PBr}_3 + 3\text{IBr} \rightleftharpoons \text{PBr}_2\text{I} + \text{I}_2$ , is demonstrated by pptn. of  $\text{PBr}_2\text{I}$  with a small amt. (ca. 1 mole %) of  $\text{I}_2$ ; the liquid becomes dark cherry red, the color characteristic of a soln. of  $\text{I}_2$  in  $\text{PBr}_3$ . Analysis of the product obtained by fusion of 51.1 mole %  $\text{PBr}_3$  and 48.9 mole %  $\text{IBr}$ , extrd. with  $\text{PBr}_3$ , then washed with  $\text{CS}_2$  and dried in a stream of dry  $\text{CO}_2$  at  $50^\circ$ , confirmed the formula  $\text{PBr}_2\text{I}$ . Of the 2 liquid layers formed above 33.34 mole %  $\text{PBr}_3$ , the upper, lighter in color, is nonconducting. The elec. cond. of the lower, dark-brown layer passes through a max.,  $\sim 0.03 \text{ ohm}^{-1}$ , at 13-15 mole %  $\text{PBr}_3$ , then falls slowly, and remains const. (0.12 and 0.13  $\text{ohm}^{-1}$  at  $45^\circ$  and  $55^\circ$ , resp.) on further increasing  $\text{PBr}_3$ . The high cond. indicates an electrolyte of the type  $[\text{PBr}_2][\text{IBr}]$ . (3) The same compnl. was obtained by pptn. on mixing satd. solns. of  $\text{PBr}_3$  and of  $\text{IBr}$  in  $\text{CS}_2$ , and drying in a stream of dry  $\text{CO}_2$  at  $50^\circ$ . Consequently, the reactions  $\text{PX}_3 + 2\text{IX} \rightleftharpoons \text{PX}_2\text{I} + \text{I}_2$  ( $\text{X} = \text{Cl}, \text{Br}$ ) are reversible, and the systems  $\text{PX}_2\text{-I}_2$  and  $\text{PX}_2\text{-IX}$  are conjugated. N. Thom

Oxidation of nitrosyl chloride. N. N. Drozin and I. S. Galanter. *Zhur. Priklad. Khim.* (J. Applied Chem.) 22, 475-82 (1949).—The reactions (I)  $3\text{NaCl} + 4\text{HNO}_3 \rightleftharpoons 3\text{NaNO}_2 + \text{Cl}_2 + \text{NOCl} + 2\text{H}_2\text{O}$ , followed by the oxidation (II)  $\text{NOCl} + \frac{1}{2}\text{O}_2 \rightleftharpoons \text{NO}_2 + \frac{1}{2}\text{Cl}_2$ , are studied as a prospective process for large-scale production of  $\text{Cl}_2$ .



From Lewis and Randall's data for the component reactions (III)  $\text{NO} + \frac{1}{2}\text{Cl}_2 \rightarrow \text{NOCl}$  and (IV)  $\text{NO} + \frac{1}{2}\text{O}_2 \rightarrow \text{NO}_2$ , the free-energy change of reaction II is  $\Delta F = -3070 + 2.75 T \ln T - 0.0028 T^2 + 0.31 \times 10^{-5} T^3 - 11.57 T$ , i.e. (selected points), at 100, 300, 500, 800, 1000°K,  $-\Delta F = 4000, 4017, 3003, 1134, 230$  cal. At higher temps.,  $\text{NO}_2$  is decomposed into  $\text{NO}$  and  $\text{O}_2$ , and reactions III and IV become significant. Thermodynamically, reaction III is repressed by an increase of the temp. Kinetically, the rate of III decreases with rising temp. (from  $7.34 \times 10^3$  to  $2.54 \times 10^2$   $\text{cm}^3 \text{mole}^{-1} \text{sec}^{-1}$  between 273.1 and 801.9°K.), whereas that of IV increases (from  $(5-7) \times 10^3$  to  $1.11 \times 10^5$  between 273 and 300.4°K.), consequently, at room temp., IV is about 1000 times faster than III, but the rates draw closer with rising temp. Thus, on both thermodynamic and kinetic grounds, reaction III lags behind IV at any temp. Oxidation of the  $\text{NOCl}$  formed by reaction I must of necessity produce  $\text{NO}$ , the major part of which will, on further oxidation, form  $\text{NO}_2$  rather than  $\text{NOCl}$ . Most complete oxidation of  $\text{NOCl}$  with air, in  $\text{HNO}_3$ , will therefore occur at lower temps., below 300°. Experimentally, in up to 60%  $\text{HNO}_3$ ,  $\text{NOCl}$  undergoes to a large extent hydrolysis to  $\text{HCl}$  and  $\text{HNO}_2$ . Oxidation of  $\text{NOCl}$  to  $\text{Cl}_2$  should, therefore, be conducted in  $\text{HNO}_3$  of at least 70% N. T.

2

Physicochemical investigation of the system phosphorus trichloride-bromine. I. Ya. A. Fialkov and A. A. Kuz'menko. *Zhur. Obshchei Khim.* 21, 433-44 (1951) [*J. Gen. Chem., U.S.S.R.* 21, 470-80 (1951) (English trans.)]. The system was studied by measuring m.p.s. over the entire concn. range.  $\text{Br}_2$  m.  $-7^\circ$ . With the addn. of  $\text{PCl}_3$ , the m.p. falls to a eutectic m.  $-8.4^\circ$ , contg. 5.48 mole %  $\text{PCl}_3$ , then rises to a max. of  $24.5^\circ$ , 10.04 mole %  $\text{PCl}_3$ , falls to a 2nd eutectic at  $15.5^\circ$ , 20.7 mole %  $\text{PCl}_3$ , rises to a max. at  $37.7^\circ$ , 32.87 mole %  $\text{PCl}_3$ , and then levels off at about  $36.6^\circ$  out to about 90 mole %  $\text{PCl}_3$ , where it drops sharply to  $-112.5^\circ$ , the m.p. of  $\text{PCl}_3$ . Between 33 and 90 mole %  $\text{PCl}_3$  there are formed 2 liquid phases. The 1st max. in the m.p.-concn. curve corresponds to the compd.  $\text{PCl}_2\text{Br}$ , the 2nd to  $\text{PCl}_2\text{Br}_2$ . The liquid layers formed at higher  $\text{PCl}_3$  concns. were also identified; the less dense was a sat'd soln. of  $\text{PCl}_2\text{Br}$  in  $\text{PCl}_3$  and was electrically nonconducting, the more dense was molten or supercooled  $\text{PCl}_2\text{Br}_2$ , and was a good conductor of electricity. Elec. cond. was measured over the entire concn. range at 25 and  $30^\circ$ . Starting with  $\text{Br}_2$ , a non-

conductor, at  $25^\circ$  the cond. rises sharply and almost linearly to a max. of  $8.01 \times 10^{-9}$  ohm $^{-1}$  cm. $^{-1}$  at 10.04 mole %  $\text{PCl}_3$ , then drops to a min. of  $5.12 \times 10^{-9}$  at 31.82, and rises slowly and levels off at  $5.61 \times 10^{-9}$  above 50 mole %  $\text{PCl}_3$ . Values of d. were measured at  $25^\circ$ ; d. of  $\text{Br}_2$  is 3.121; with increasing  $\text{PCl}_3$  concn. d. rises to a max. of 3.140 at 10.38 mole %  $\text{PCl}_3$ , then falls to 2.906 at 21.53 mole %  $\text{PCl}_3$ . The 2 compds. were prepd. separately, and their elec. cond. were measured. Values of temp. ( $^\circ\text{C}$ .) and elec. cond. (ohm $^{-1}$  cm. $^{-1} \times 10^{-9}$ ) are:  $\text{PCl}_2\text{Br}$ : 35,  $1.82 \times 10^{-9}$ ; 40, 7.09; 45, 7.42; 50, 6.59;  $\text{PCl}_2\text{Br}_2$ : 13,  $6.37 \times 10^{-9}$ ; 20, 0.153; 30, 8.51; 40, 9.86; 50, 11.1; 60, 12.0; 70, 12.2. Arild J. Miller

USSR/Chemistry - Phosphorus Compounds

Mar 51

"Investigation of Complex Compounds of Phosphorus Pentachloride and Pentabromide With Iodine Chloride and Bromide," A. A. Kuz'menko, Y. A. Pialkov, Lab Complex Compd, Inst Gen and Inorg Chem, Acad Sci Ukrainian SSR

"Zhur Obshch Khim" Vol XXI, No 3, pp 473-481

Proved by mp diagrams of  $PBr_5 \cdot IBr$  and  $PCl_5 \cdot ICl$  systems that complex compd of equimol compn ( $PCl_5 \cdot ICl$  and  $PBr_5 \cdot IBr$ ) are formed in these systems. Systems have high elec cond. Cryoscopic investigations showed that above complexes also form in nitrobenzene

176r26

USSR/Chemistry - Phosphorus Compounds Mar 51  
(Contd)

soln, but here mol wt drops greatly due to electrolytic disson and partial decompn of  $PCl_5$  and  $PBr_5$ .

176r26

KUZ'MENKO, A. A.

Chemical Abst.  
Vol. 48  
Apr. 10, 1954  
Inorganic Chemistry

Investigations in the field of polyhalide compounds formed by nonpolar halides. Va. A. Malkov, A. A. Kus'menko, and I. I. Abrikosov. Dokl. Akad. Nauk S.S.S.R. 26, 124-126 (1951).—A series of systems was investigated that consisted of the halogens or halides of I and the nonpolar or weakly polar halides of P, S, and Al. Particular attention was given to the mechanism of the formation of polyhalides (or double halides) and to the nature of the elec. cond. of such systems. The compds. of the halides of S or Al with the halides of I are representative of a new type of double halide with I as cation, a new series of compds. of electropos. I.

J. R. Behrman

MS  
MET  
2

KUZ'MENKO, A. A.

Chemical Abst.  
Vol. 48 No. 9  
May 10, 1954  
Inorganic Chemistry

Oden 2

✓ Preparation and study of mixed halides of phosphorus.  
A. A. Kuz'menko. *Ukrain. Khim. Zhur.* 18, 889-91 (1953) (in Russian).—Heating 40.5 mol. %  $PBr_3$  with 59.5 mol. %  $PCl_3$  to 40–60° and cooling gave orange-red crystals and liquid  $PCl_3$ ; the sep'd. crystals, identified as  $PCl_2Br_2$ , m. 36.7°. Similarly 2.7 g.  $PCl_3$  and 3.75 g.  $PBr_3$  gave  $PCl_2$  and 4.28 g. solid  $PCl_2Br_2$ . Addn. of  $PBr_3$  to excess  $PCl_3$  gave a red ppt. and at 3:2 molar ratio yields  $PCl_2Br_2$ . If excess  $PBr_3$  is present there is formed yellow solid  $PClBr_3$ . Addn. of  $PBr_3$  to  $PCl_2Br_2$  gives yellow  $PClBr_3$ . Cond., detns. of these substances in  $PhNO_2$  showed that replacement of 1 Br in  $PBr_3$  by 1 Cl increases cond. some 50%; introduction of 3 Cl atoms increases cond. some 10-fold.  
G. M. Kosolapoff

9-2-54  
M.P.

RUE-LEHAW, A. A.

Chemical Abst.  
Vol. 48 No. 9  
May 10, 1954  
General and Physical Chemistry

(2' Cl<sub>2</sub>)  
Physicochemical investigation of the system phosphorus trichloride-bromine. II. ~~Xa. A. Fialkov and A. A. Kuz'menko. J. Gen. Chem. U.S.S.R. 22, 1335-14 (1952)~~ (Engl. translation); Zhur. Obshch. Khim. 22, 1290-8 (1952); cf. C.A. 46, 8403g. --The viscosity of the system  $\text{PCl}_3\text{-Br}_2$  was measured at 25° and 10°. A max. was found at 20 mole %  $\text{PCl}_3$ , corresponding to the complex  $\text{PCl}_2\text{Br}_2$ . Two other complexes,  $\text{PCl}_4\text{Br}_2$  and  $\text{PCl}_3\text{Br}_3$ , are indicated on the fusion diagram. The elec. cond. of these complexes in nitrobenzene increases with concn., attaining values of the order of  $10^{-2}$  ohm<sup>-1</sup> cm.<sup>-1</sup>, and increasing in the order  $\text{PCl}_4\text{Br}_2 < \text{PCl}_3\text{Br}_3 < \text{PCl}_2\text{Br}_2$ . Measurement of the elec. cond. revealed the formation of products of addn. of  $\text{Br}_2$  to  $\text{PCl}_3$ , with  $\text{PCl}_3\text{Br}_2$  the most probable compn. By the method of ionic migration it was shown that the structure of these compds. can be expressed by the formula  $[\text{PCl}_2\text{Br}]_n[\text{Br}(\text{Br})_2]_m$ . On the basis of thermal analysis and from the synthesis of these chlorobromides,  $n$  ranges between 1 and 8, which corresponds to the series of complexes starting with  $\text{PCl}_2\text{Br}_2$  and ending at  $\text{PCl}_2\text{Br}_{11}$ .  
Bernard Rubin

FYALKOV, YA. A., KUZ'MENKO, A. A., ABARBARCHUK, I. L.

Halides

Investigation of polyhalides, formed by non-polar halides., izv. Sekt. plat, 1 blag. met., no. 26, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 195~~7~~, Uncl.  
2

PIALKOV, Ya.A.; KUZ'MENKO, A.A.; KOSTROMINA, N.A.

Physicochemical study of the system: phosphorus pentachloride --  
-- tetramethylammonium chloride in acetonitrile solution. Ukr.  
khim.zhur. 21 no.5:556-560 '55. (MLRA 9:3)

1. Institut obshchey i neorganicheskoy khimii AN USSR.  
(Phosphorus chlorides) (Ammonium compounds, Substituted)



AUTHOR: Kuz'menko, A. A.

SOV/78-3-8-19/48

TITLE: The Production and Investigation of the Reaction of the Formation of Compounds of Some Rare Earth Elements With Hexamethylene Diamine Tetraacetic Acid (Polucheniye i issledovaniye reaktsii obrazovaniya soyedineniy nekotorykh redkozemel'nykh elementov s geksametilendiamintetrauksusnoy kislotoy)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol. 3, Nr 8, pp. 1829-1837 (USSR)

ABSTRACT: The results of the investigations of the interaction between hexamethylene diamine tetraacetic acid and chloride solutions of yttrium, lanthanum, cerium and neodymium are described. The investigations were carried out to determine the composition and the conditions of the formation of the complexes by the pH value of the solution and the amount of the complexon. The investigations were carried out by potentiometric titration and the determination of the electric conductivity. The complexon was used in form of sodium salt. The following systems were investigated:  $\text{LaCl}_3\text{-Na}_3\text{H-hexa}$ ,  $\text{CeCl}_3\text{-Na}_3\text{H-hexa}$ ,  $\text{NdCl}_3\text{-Na}_3\text{H-hexa}$

Card 1/4

The Production and Investigation of the Reaction of the Formation of Compounds of Some Rare Earth Elements With Hexamethylene Diamine Tetraacetic Acid

SOV/78-3-8-19/48

hexa,  $YCl_3-Na_3H$ -hexa.

In the system  $LaCl_3-Na_3H$ -hexa two compounds occur, and on the addition of an excess complexon the precipitation remains insoluble. In the system  $CeCl_3-Na_3H$ -hexa at a pH value of 5,9 a precipitation occurs which at a pH value of 9,3 on the addition of an excess complexon passes into solution. In the system  $NdCl_3-Na_3H$ -hexa at pH = 6,7 a precipitate is found which at pH = 8,5 on the addition of an excess complexon passes into solution.

Also the systems of the chlorides of Y, La, Ce and Nd and  $Na_4$ -hexa were investigated. At 50 mole %  $Na_4$ -hexa maximum precipitations occur which in the case of  $Na_4$ -hexa excess of various rare earths pass into solution at different pH values. The Y-complexonate is soluble at pH=8, lanthanum complexonate at 8,6, cerium complexonate at 8,8, and neodymium complexonate at 9,2.

Card 2/4

SOV/78-3-8-19/48  
The Production and Investigation of the Reaction of the Formation of Compounds  
of Some Rare Earth Elements With Hexamethylene Diamine Tetraacetic Acid

From the investigations carried out may be concluded that in all systems investigated complex compounds of the type  $HM$ -hexa and  $M_4$ -hexa<sub>3</sub> exist ( $M$  - rare earth cations).

The neutralization curves were taken with 0,1 mole sodium complexonate solution and 0,05 rare earth chloride solutions. Only in the system  $YCl_3$ - $Na_4$ -hexa one single complex was found, which had the composition  $Y_4$ hexa<sub>3</sub>. At higher temperatures only  $HM$ -hexa exists in the production of complexes, as the  $M_4$ -hexa complexes are easily hydrolyzable. There are 8 figures, 3 tables, and 14 references, 2 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR  
(Institute of General and Inorganic Chemistry, AS UkrSSR)

SUBMITTED: July 2, 1957

Card 3/4

KUZ'MENKO, A.A.

Physicochemical investigation of aqueous solutions of the cerium  
chloride - Trilon B system. Ukr. khim. zhur. 24 no.4:430-434  
'58. (MIRA 11:10)

1. Institut obshchey i neorganicheskoy khimii AN USSR.  
(Cerium chloride) (Acetic acid)

PRONIN, G.N.; KUZ'MENKO, A.F.

Mechanized removal of sand mixture from molding machines. Lit.  
proizv. no.8:36-37 Ag '63.  
(MIRA 16:10)

BUBLIK, M.A.; KUZ'MENKO, A.F.

Equipment for the preparation of clay suspensions. Lit. proizv.  
no.10:39 0 '63. (MIRA 16:12)

L 41141-66 ENT(1)/ENT(m)/EWP(t)/EWP(e)/ETI IJP(c) JD

ACC NR: AP6027244

SOURCE CODE: UR/0109/66/011/008/1523/1525

AUTHOR: Kobtsev, Yu. D.; Kuz'menko, A. I.

ORG: Kiev Polytechnic Institute (Kiyevskiy politekhnicheskii institut) 27B

TITLE: Voltage-controlled nonlinear resistor made of titanium diboride 27

SOURCE: Radiotekhnika i elektronika, v. 11, no. 8, 1966, 1523-1525

TOPIC TAGS: resistor, titanium compound, variable resistor

ABSTRACT: A nonlinear resistor made of titanium diboride has been developed. The resistor is voltage-controlled and is made by compacting and baking 5-10  $\mu$  powder containing 71% titanium, 28% boron, and 1% carbon. Resistance is varied by impressing a control field on the specimen perpendicular to the working field. To obtain maximum variation of the resistance, the control field gradient is maintained several times greater than the working field gradient. Figure 1 shows the volt-ampere characteristics of the resistor for different control voltages; curves 1, 2, 3, 4, and 5 were obtained for control voltages of 0, 1, 3, 5, and 7 v, respectively. Changes in the control voltage from about -6 to +6 v and in the working voltage from 1 to 8v produced a 34 to 100% change in the resistance of the specimen.

Card 1/2

UDC: 621.316.826

L 4114-66

ACC NR: AP6027244

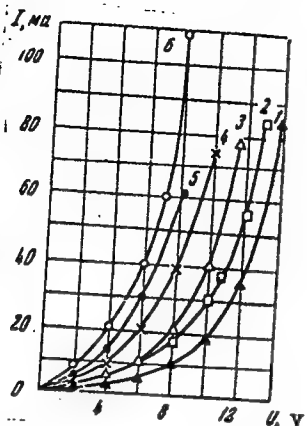


Fig. 1. Volt-ampere characteristics of a nonlinear resistor for various control voltages.

Coupling between the control voltage and the working circuit was not greater than 2—7% for the normal working range of the resistor. Resistance change under pulsed operating conditions was also measured. With control voltages of up to 30-v dc, pulses with amplitudes of 1—5 v, durations of 1—10  $\mu$ sec, and repetition rates up to 10 kc, a 6—18% change in resistance was produced. Orig. art. has: 4 figures. [IV]

SUB CODE: 09/ SUBM DATE: 11Oct65/  
 ORIG REF: 011/ ATD PRESS: 5054-

Card 2/2 hs



BABAYEV, Agadshah Gel'dyyevich; FEDOROVICH, B.A., doktor geogr.  
nauk, prof., red.; KUZ'MENKO, A.I., -red.; IVONT'YEVA,  
G.A., tekhn. red.

[The Kara Kum Desert] Pustynia Kara-Kumy. Pod red. B.A.  
Fedorovicha. Ashkhabad, Izd-vo AN Turkm.SSR, 1963. 87 p  
(Kara Kum) (MIRA 16:8)

AMANOV, Soltanmurad; GORIN, V.A., doktor geol.-miner. nauk,  
prof., nauchn. red.; KUZ'MENKO, A.I., red.;  
NASIBOVA, S.G., red.

[Akchagyl' sediments in the Balkhan Range region and  
their oil and gas potentials; western Turkmenistan]  
Akchagyl'skie otlozheniia Pribalkhanskogo raiona i ikh  
neftegazonosnost'; Zapadnyi Turkmenistan. Ashkhabad,  
Turkmenizdat, 1964. 174 p. (MIRA 18,1)

RYBALKIN, D.O., inzh.; KUZNETSKO, A.I., inzh.

Standardizing the dimensions of rolled welded pipes. Stan-  
dartinatsia 29 no. 11:24-35 II '65 (MIRA 19:1)

NOVIKOV, G.I.; KUZNETSOV, A.I.

Vapor composition in halide systems of some alkaline and alkaline earth metals. Vest. LNU no. 16:153-159 1964.

Thermal stability of the vapor-phase compounds of some alkalis and alkaline earth metals. Ibid.:161-166 (1964) 17: 1)

KUMININ, A.I.; NOVIKOV, G.I.

Vapor composition in the chloride systems of some alkali metals.  
Vest. LGU 19 no.23:102-108 '64  
(MIRA 18:1)

FALEYEV, L.V., inzh.; KUZ'MENKO, A.M., inzh.

Experimental and theoretical investigations of the bearing capacity of reinforced concrete beams of rectangular section performing on an oblique bend with torsion. Stroitel'stroytvo. no.2:45-60 '65. (MIRA 18:12)

1. Poltavskiy inzhenerno-stroitel'nyy institut.

KUZMENKO, A. N.

COUNTRY : USSR  
 CATEGORY : Pharmacology and Toxicology. Analeptics V  
 ABS. JOUR. : RZhBiol., No. 5 1959, No. 23064  
 AUTHOR : Vasilevskaya, N. P.; Kuzmenko, A. N.  
 INST. : -  
 TITLE : Changes of the Sugar Level in the Blood of Man  
 During Peroral Administration of the Seeds of  
 Schizandra chinensis  
 ORIG. PUB. : V sb.: Materialy k izuch. zhen'shenya i limonnika.  
 Vyp. 3, L., 1958, 166-169  
 ABSTRACT : Triturated seeds of Schizandra chinensis (S) in a  
 dose of 2-5 g were administered on an empty sto-  
 mach perorally to 40\*persons, simultaneously with  
 50 g of glucose (G), 2 hours prior to the admi-  
 nistration of G and without administration of G.  
 No regularities of the action of S upon the sugar  
 level in the blood were detected.

\*healthy

Card: 1/1

16

26.2190

38734  
S/194/62/000/005/015/157  
D256/D308

AUTHORS: Kuz'menko, A.P., and Akul'bekov, Z.

TITLE: Electronic temperature monitor YTC-20 (ETS-20) for 20 probes

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 5, 1962, abstract 5-2-52 k (Vopr. mekhaniz. i avtomatiz. v gorn. prom-sti. (KNIUI, no. 8), M., 1961, 283-288)

TEXT: A brief discussion of devices for signalling of excess temperatures of various objects, e.g. bearings, machine elements etc., using thermistor pickups 1) arrangement for remote temp. monitoring in bearings of KT-1 (KT-1) type including a provision for locating the overheated area; 2) signalling temp. monitor YTC-1 (UTS-1); 3) temp. monitoring arrangement developed by Leningrad Giprosnakht. A description is given of the electronic contactless temperature signalling device ETS-20 developed by KNIUI. ETS-20 consists of the monitor unit and a power supply unit, the latter comprising a ferro-resonance voltage stabilizer, an amplifier panel and el.-magn. relay Card 1/2.



Electronic temperature monitor ...

S/194/62/000/005/015/157  
D256/D308

MKY-48 (MKU-48). The monitor unit includes 20 neon bulbs MH-3 (MN-3), thermistor KMT-10 (KMT-10) and a 20-socket frame for checking the normal operation of the unit. The signalling unit is devised for 20 controlled points. A relay operation which is a basis for the ETS-20 is attained by connecting the linear resistance in series with the pickup. The circuit diagram of the monitor is presented and described. 4 figures. 3 references. [Abstractor's note: Complete translation].

Card 2/2

S/194/62/000/004/009/105  
D222/D309

AUTHORS: Kuz'menko, A. P. and Mukanov, D. V.

TITLE: Universal electronic relay with spark-proof control circuits

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 4, 1962, abstract 4-2-7g (Vopr. mekhaniz. i avtomatiz. v gorn. prom-sti (KNIUI, no. 8), M., 1961, 289-294)

TEXT: The РЭН (REI) type relay is described, which can use switching thermo-photoresistors, electromagnetic and other types of pick-ups; with negligible alterations in the input circuit. REI is used for the control of conveyer belt and scraper speeds, for trailing lift ropes, filling a bunker with coal, etc. The REI circuit contains semiconductor elements. REI has the following technical characteristics: mains voltage 127 or 220 V, power consumption 1 VA, breaking capacity 300 W, AC control circuit voltage 8 V (at a maximal current of 7.5 mA and maximum circuit resistance of 30 kilohm),

Card 1/2

Universal electronic relay ...

S/194/62/000/004/009/105  
D222/D309

dimensions 225 x 185 x 180 mm, weight 2.5 kg. The operating condition of the transistors is of the switching type, and the normal condition of the output transistor is "open" (in the absence of a control signal). The output relay is of type MKV-48 (MKU-48). Theoretical circuits are described for the use of scraper conveyers. The general view of REI is given. The advantages of REI are: There are no contacts, there is a controllable time delay of firing and release, and a high limit of changeover contact resistance. 3 figures. 2 references. [Abstracter's note: Complete translation.]

Card 2/2

KHULLA, A., KUZ'MENKO, A.

USSR (600)

Dairy Schools

Educational and training work in the Medvedovo school for master cheese makers.  
Mol. prom. 13 No 4, 1952

9. Monthly List of Russian Accessions, Library of Congress, June 1958, Uncl.  
2

KUZ'MENKO, A., Eng.

Cheese

Several problems in raising the qualitative level of production. Mol. prom 13,  
No. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952, Uncl.

Meat, A.

Meat Industry and Trade

Automatic drying of blood in a disc spray drier. Mias. ind. SSSR 23 no. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

KUZ'MENKO, A.

Packing Houses

Control and automatization of technical processes in packing houses. Mias. ind.  
23 No. 4, 1952.

MONTHLY LIST OF RUSSIAN ACCESSIONS, LIBRARY OF CONGRESS, DECEMBER 1952. Unclassified

1. KUZMENKO, A.
2. USSR (600)
4. Steam
7. Collection and recovery of steam vapor.  
Mias. ind. SSSR 23 No. 6, 1952
9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.



KUZ'MENKO, A.P., kandidat tekhnicheskikh nauk; GORBATOV, V.M., inzhener;  
FEDOROV, N.Ye., kandidat tekhnicheskikh nauk, retsenzent; MAYKOPAR,  
M.B., kandidat tekhnicheskikh nauk, retsenzent; SOKOLOV, Yu.A.,  
kandidat tekhnicheskikh nauk, retsenzent; SKOKAN, I.G., kandidat  
tekhnicheskikh nauk, retsenzent; RYUTOV, D.G., kandidat tekhnicheskikh  
nauk, retsenzent. DEBUKH, V.A., inzhener, spetsredaktor;  
NIKOLAYEVA, N.G., redaktor; GOTLIB, E.M., tekhnicheskiiy redaktor

[Automatic production-line regulation and control in the meat  
industry] Avtomaticheskoe regulirovanie i kontrol' protsessov v  
miasnoi promyshlennosti. Moskva, Pishchepromizdat, 1954. 443 p.  
(Automatic control)  
(Packing houses)  
(MLRA 8:2)

KUZ'MENKO, A., kandidat tekhnicheskikh nauk.

Automatic regulation of heating and ventilating equipment in  
meat combines. Mias.ind.SSSR. 25 no.4:20-25 '54. (MLRA 7:8)  
(Packing houses--Heating and ventilation) (Automatic  
control)

KUZ'NENKO, Aleksandr Petrovich, dots., kand. tekhn. nauk; LIPATOV, N.N.,  
kand. tekhn. nauk, spets. red.; SEMENOVA, N.L., red.; GOTLIB,  
E.M., tekhn. red.

[Automatic control equipment for the meat and dairy industry]  
Pribory dlia kontrolya i avtomaticheskogo regulirovaniia v miasnoi  
i molochnoi promyshlennosti. Moskva, Pishchepromizdat, 1957. 322 p.  
(Automatic control) (MIRA 11:7)  
(Meat industry--Equipment and supplies)  
(Dairy--Equipment and supplies)

KUZ'MENKO, A.P.; STROYKOVSKIY, A.K.; SOBOKIN, S.A.

General solution of Maxwell's equations and its analysis  
for a boundary surface without axial symmetry. Nauch.  
trudy KNIUI no.15:399-413 '64.  
(MIRA 18:8)

KUZ'MENKO, A.P.; AKUL'BEKOV, Z.Zh.

The ETS-10 electronic temperature signalling device. Naush.  
trudy KNIUI no.15:414-416 '64.  
(MIRA 18:8)

1

NESIS, A.I.; KUZ'MENKO, A.P.; PERSHIN, A.A.; ZYABREV, Yu.P.

Set of electronic equipment for medical examinations. Nauch. trudy  
KNIUI no.16:253-258 '64.  
(MIRA 18:7)

AUTHOR: Kuz'menko, A.S.

SOV/68-59-7-15/33

TITLE: An Automatic Recording Instrument for the Determination  
of the Duration of Production Processes

PERIODICAL: Koks i khimiya, 1959, Nr 7, pp 43 - 44 (USSR)

ABSTRACT: The use of an electric recording clock for the timing of  
individual operations, e.g. door cleaning, is described.  
For the purpose, an electric clock of the II-PTeCh type  
modified to serve as a recorder is being used in the  
Yasinovskiy Works. The necessary modification of the  
clock is outlined.  
There are 2 figures.

ASSOCIATION: Yasinovskiy koksokhimicheskiy zavod (Yasinovskiy  
Coking Works)

Card 1/1

AUTHOR: Kuz'menko, A.S.

Sov/68-59-10-18/24

TITLE: An Automatic Control of Temperature in the Insulator's Box of an Electrostatic Precipitator

PERIODICAL: Koks i khimiya, 1959, Nr 10, pp 54-55 (USSR)

ABSTRACT: The temperature of insulators in an electrostatic precipitator should be 20-30° above that of the gas. In the original design of the precipitators it is maintained by manual control of the steam supply in to the box surrounding the insulator. On the Yasinovka Coking Works an automatic control of the temperature was designed and introduced into operation with satisfactory results. It is based on differential electronic bridge operating from two resistance thermometers (figs 1 and 2). The accuracy of the maintained temperature difference is  $\pm 1^{\circ}\text{C}$ . There are 2 figures.

ASSOCIATION: Yasinovskiy koksokhimicheskii zavod  
(Yasinovka Coking Works)

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KULISHENKO, A.Z.; KHARITONOV, A.S.; KUZ'MENKO, A.S.; GARMASH, G.K.

Determination of the viscosity of magnetite in suspension by measuring its magnetic permeability in conjunction with a radioactive densitometer. Koks i khim. no.2:13-15 '60.  
(MIRA 13:5)

1. Ukrainskiy uglekhimicheskiy institut (for Kulishenko, Kharitonov). 2. Yasinovskiy koksokhimicheskiy zavod (for Kuz'menko, Garmash).  
(Yasinovka--Coal preparation) (Magnetite)

KULISHENKO, A.Z.; BOCHAROV, N.G.; KUZ'MENKO, A.S.

New flow sheet and automatic control of the flotation process.  
Koks i khim. no.3:3-11 '62. (MIRA 15:3)

1. Ukrainskiy uglekhimicheskiy institut (for Kulishenko).
2. Yasinovskiy koksokhimicheskiy zavod (for Bocharov, Kuz'menko).  
(Coal preparation) (Flotation) (Automatic control)

KUZ'MENKO, A.S., aspirant

Utilize the land more intensively. Zemledelie 26 no.7:59-60 JI '64.  
(MIRA 18:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut zemeldeliya.

ACC NR: 111 111 111

AP6031526

/N/

SOURCE CODE: UR/0170/66/011/003/0345/0348

AUTHOR: Orekhov, Yu. I.; Kuz'menko, B. A.

ORG: Institute of Physics and Power Engineering, Obninsk (Fiziko-energeticheskiy institut)

TITLE: The stability of a fundamental harmonic with respect to xenon oscillations in the power of a reactor with closed loop coolant circulation

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 11, no. 3, 1966, 345-348

TOPIC TAGS: harmonic, harmonic oscillation, harmonic stability, circulation, nuclear reactor coolant, xenon oscillation

ABSTRACT: A study was made on the problem of xenon oscillations of the reactor power with allowance for its connection with the other elements of a nuclear power installation. It was shown that the conditions of stability of a closed loop reactor differ from those of an open loop reactor and depend on the heat removal from the second loop. Two cases are considered: 1) heat removal from the second loop is proportional to the coolant temperature at the outlet from the second loop; 2) heat

Card 1/2

UDC: 621.039.5

L 09879-67

ACC NR: AP6031526

removal from the second loop is constant. A closed loop reactor is more stable than an open-loop reactor. Orig. art. has: 26 formulas. [Authors' abstract]

SUB CODE: 20/ SUBM DATE: 28Feb66/ ORIG REF: 001/ OTH REF: 001/

Card

2/2

BLIYUKHER, V.V., inzh.; GANSHTAK, V.I., doktor ekonom.nauk; KUZ'MENKO, B.P., inzh.  
Promoting the increase in production quality. Vest.mashinostr. 45  
no.3:75-77 Mr '65.

(MIRA 18:4)

KUZ'MENKO, B.P.

Stimulate the promotion of quality improvement. Mashinostroitel'  
no.7:36-37 J1 '65.  
(MIRA 18:7)





100-100000, Dmitrii Vasil'evich

The theory of aviation 3. isopravlennoe izd.  
oborony Sotuzn SSR, 1937. 447 p. (42-50342) Moriya, Jos. voen. izd-vo Markomata  
TL57C.K8 1937

3. ispravlennoe izd.  
447 p. (42-50343)

TL57C.K8 1937

KUZ'MENKO, DMITRIY VASIL'EVICH.  
KUZ'MENKO, DMITRIY VASIL'EVICH.

Zadachnik po teorii aviatsii. Moskva, Gos. voen. izd-vo, 1938.  
168 p., diagrs.

Title tr.: Problems in the theory of aviation.

TL546.5.K8

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of  
Congress, 1955.

КУЗНЕЦОВ, ДМИТРИЙ  
KUZMENKO, DMITRIY VASIL'EVICH, and B. V. VISLENEV.

Teoriia aviatsii. 4. ispr. izd. Moskva, Vcenizdat, 1939. 383 p., illus., diags.

Title tr.: Theory of aviation.

(The book may serve as a textbook for schools and combat units of the Red Army Air Force.)

TL570.K8 1939

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress,  
1955

KUZ'MENKO, D., mayor.

[Manual of problems on the theory of flight] Zadachnik po teorii  
aviatsii. Moskva, Gos. voennoe izd-vo Narkomata oborony SSSR, 1948. 166 p. [Photostat]  
(Flight) (Aeronautics) (MIRA 8:2)

KUZ'MENKO, D.Ye., ROZENFEL'D, L.M., starshiy nauchnyy sotrudnik, kand.khimi-  
cheskikh nauk; LEVIN, N.I., starshiy nauchnyy sotrudnik, kand.tekhn.  
nauk

Air-entrained slag and ash concrete parts for precast construction.  
Stroi.mat. 7 no. 6:2-7 Je '61. (MIRA 14:7)

1. Upravlyayushchiy trestom Tagilstroy (for Kuz'menko).
2. Nauchno-issledovatel'skiy institut betona i zhelezobetona  
Akademii stroitel'stva i arkhitektury SSSR (for Rozenfel'd).
3. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh  
konstruktsiy Akademii stroitel'stva i arkhitektury SSSR (for Levin).  
(Tagil River Basin—Precast concrete)  
(Air-entrained concrete)

KUZ'MENKO, D. Ye.

An oxygen-blown converter plant can be built faster. Prom  
stroil 41 no. 12:12-16 D '63. (MIRA 17:5)

1. Upravlyzyushchiy trestom Tagilstroy.

KUZ'MENKO, E.F., inzh.

Connecting of aluminum wires to the leads of automatic air-blast switches.  
Elektrotehnika 36 no.7:41-44 J1 '65.  
(MIRA 18:7)

KUZ'MENKO, F.K.

Cultivation practices in growing potatoes and vegetables o the  
Aldan State Farm of the Far Eastern Railroad Construction Administration.  
Trudy Inst.biol.IAk.fil. AN SSSR no.1:89-94 '55. (MIRA 10:1)  
(Vegetable gardening)



KUZ'MENKO, G.A., agronom

Controlling the cherry fruit fly. Zashch.rast.ot vred.i bol. 5  
no.3:56 Mr '60. (MIRA 16:1)  
(Crimea--Cherry fruit fly--Extermination)

S/035/61/000/011/019/028  
A001/A101

AUTHOR: Kuz'menko, G. I.

TITLE: 27-day weather cycle

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 11, 1961, 66,  
abstract 11A464 ("Byul. Vses. astron.-geod. o-va", 1960, no. 28 (35)  
27 - 31)

TEXT: The 27-day cycle of some meteorological phenomena and aurora polaris is analyzed for the town of Noril'sk for 1953 - 1955. The 27-day calendar of cloudiness in Noril'sk in 1954 - 1955 reveals the 27-day recurrence in the index of cloudiness. The calendar of least temperatures also permits detection of a correlation between these minima and certain days of the 27-day solar cycle. Moreover, some days of 27-day calendar, characteristic in respect to development of aurora polaris, are also the days of minimum temperature. Auroras polaris occur oftener and more intensive in anti-cyclone periods. The type of connection between the ionosphere and troposphere varies with time, therefore the correlation of tropospheric and ionospheric phenomena does not remain always single-valued. Data on cloudiness in Odessa are compared with geomagnetic data for the period

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27-day weather cycle

S/035/61/000/011/019/028  
A001/A101

from April 1956 till February 1957. Cloudiness index in Odessa also shows a tendency to 27-day recurrence. The values of cloudiness index, summary for a 27-day cycle, and the sum of geomagnetic characteristics for the same cycles, reveal some correlation. The conclusion has been drawn on the existence of the joint 27-day cycle in the ionosphere and troposphere. ✓

[Abstracter's note: Complete translation]

B. Rubashev

Card 2/2

S/139/62/000/002/026/028  
EO32/E514

AUTHORS: Kuz'menko, G.I. and Semenov, V.V.

TITLE: The wave properties of ions in electrolytes

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,  
no.2, 1962, 171-172

TEXT: It is pointed out that all the measurements of de Broglie wavelengths have been confined to particles with relatively high velocities, e.g. thermal velocities. The present authors report a determination of the de Broglie wavelength of  $\text{Cu}^{++}$  ions. The apparatus is shown in Fig.1. Two plane copper electrodes were immersed into a  $\text{CuSO}_4$  electrolyte ( $1.02 - 1.15 \text{ g/cm}^3$ ) at  $18^\circ\text{C}$ . A constant potential difference was then applied to the electrodes, giving rise to a field of  $0.1 - 5 \text{ V/cm}$ . The cathode carried a screen  $\square$  made from an insulating material and carrying an aperture  $0$  ( $0.5 - 2 \text{ mm}$ ). The screen was located at a distance of  $0.2 - 2 \text{ mm}$  from the cathode. The anode can either be in the form of a plate as mentioned above or in the form of a needle (point anode). The use of a point anode (copper needle) pierced through an insulating plate yields the best

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